



# Compartment Review Presentation

## Cadillac Forest Management Unit

Compartment 63113

Entry Year 2017

Acreage: 1,862

County Missaukee

Management Area: Upper Muskegon

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**Revision Date:** 2015-06-12

**Stand Examiner:** Blair Tweedale

**Legal Description:**

T23N, R7W, Sections 19,20,21,22,23,24

**Identified Planning Goals:**

This compartment is located within the Upper Muskegon Management Area. Some goals for this MA are as follows: Timber management for this 10-year period will focus on harvesting older jack pine and balancing age class distributions of oak, aspen and red pine. Wildlife habitat management objectives include perpetuating early-successional communities for species adapted to young forests for hunting and other wildlife-related recreation.

**Soil and topography:**

Rubicon and Roscommon sands with some Carbondale and Lupton Muck.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:**

M-66 runs North/South on west end of compartment. Lake City is 2 miles to the south. Mixed ownerships containing large and small parcels of both state and private land. Every section within the compartment contains private ownership. The old Lake City Dump (closed) is located in sec 19. Two-track leading to dump passes thru state land is gated at Decker Road.

**Unique Natural Features:**

Potential for great blue heron rookery, wood turtle, osprey, eagle, goshawk, red-shouldered hawk, massasauga, box turtle, blanding's turtle. Potential for ebony boghaunter and secretive locust in bogs. Potential for rare plants of cedar swamp: limestone oak fern, ram's head lady's-slipper and calypso orchid.

**Archeological, Historical, and Cultural Features:**

Woodland Indian Mounds in RMU but not in compartment.

**Special Management Designations or Considerations:**

Acceptable silvicultural guidelines will be followed.

**Watershed and Fisheries Considerations:**

The headwaters of the West Branch of the Muskegon River runs east through the east half of this compartment. It is a designated trout stream in this area, having self-sustaining populations of brook trout. Fisheries Division requests at least the minimum BMP buffer of 100 feet.

**Wildlife Habitat Considerations:**

This compartment encompasses swamp areas along the West Branch of the Muskegon River. These swamp complexes and associated uplands provide black bear habitat and deer wintering complex. Objectives are to continue to manage for high structural diversity within stands and age class diversity across the compartments. Featured species of special interest are deer, snowshoe hare and bear. Timber sale specifications to benefit wildlife (where applicable) will include brush pile creation along lowland edges, protection of mast-bearing wildlife shrubs and ironwood, protection of standing dead snags, and creation of drumming logs (1-2 per acre) and woody debris (tops or whole trees) in aspen cuts. (E. Victory 6/2015)

**Mineral Resource and Development Concerns and/or Restrictions**

Sections 19 - 24, T23N-R7W, Missaukee County

Surface sediments consist of ice-contact and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift are the Pennsylvanian Grand River and Saginaw Formations. The Saginaw is quarried for clay/shale in other parts of the State. Gravel pits are located in the area and potential is good. The compartment is located six miles southwest of Cannon Creek Field. The field has produced from the Stray Sandstone and Detroit River Sour Zone. There are no State leases currently in the Compartment

**Vehicle Access:**

A forest road access plan is detailed on the compartment map. Identified are state and county roads as well as forest roads and trails under the jurisdiction of the DNR.

**Survey Needs:**

Section 22 needs some survey work prior to treatment.

**Recreational Facilities and Opportunities:**

There are no designated trails within this compartment. Dispersed camping and hunting do occur within this compartment. (T.M.N. 12/16/14).

**Fire Protection:**

Fire access in the east side of the compartment is limited due to the head waters. Conifer types on the west side of unit would support a crown fire in extreme fire weather. Dispersed camping and recreationalists could be a cause of a wildfire.

**Additional Compartment Information:**

The following reports from the Inventory are attached:

- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

The following information is displayed, where pertinent, on the attached compartment maps:

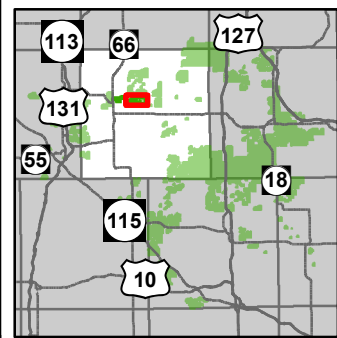
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**







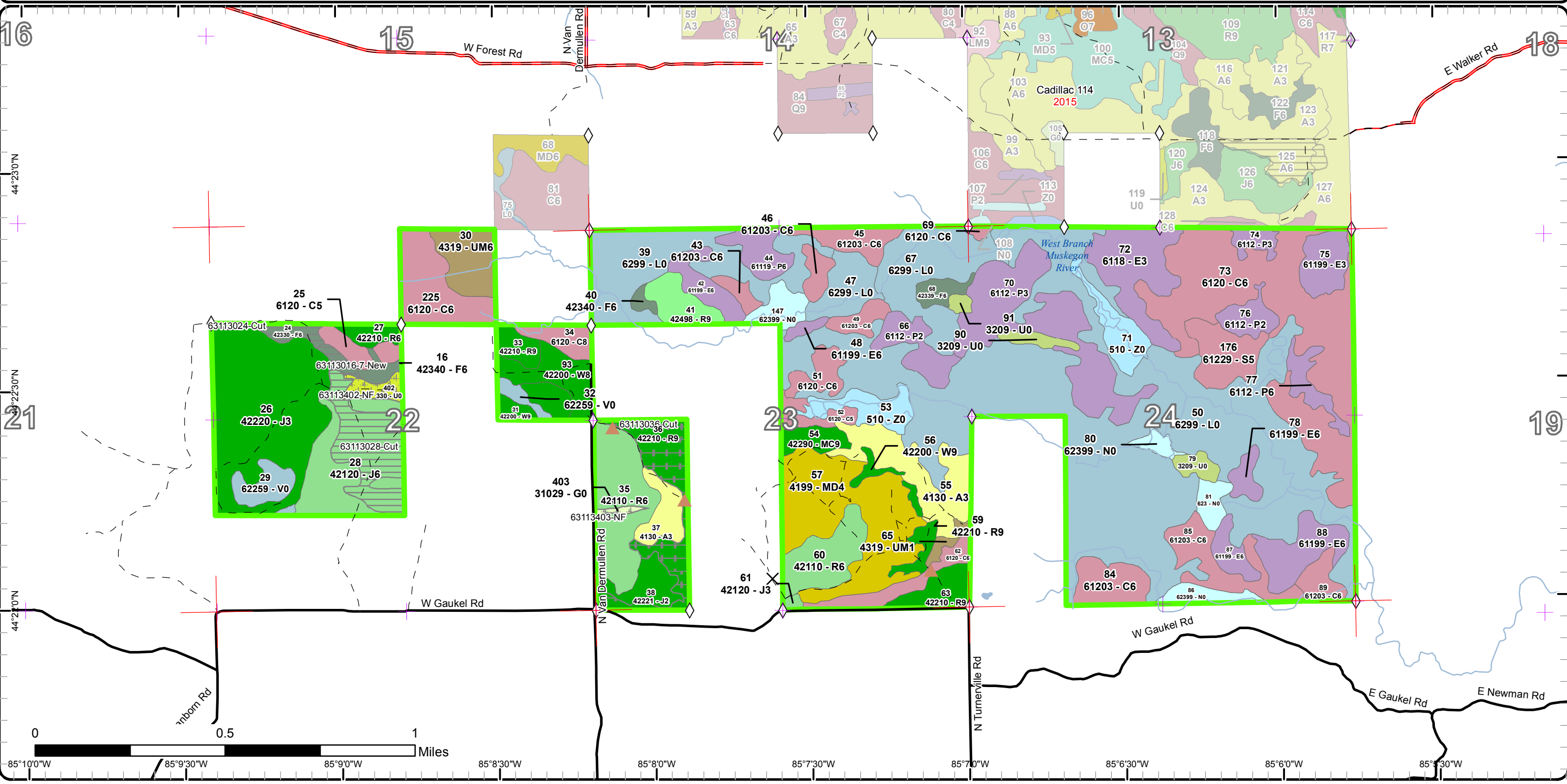
# Cover Type & Treatments



Compartment: 113  
 T23N, R07W, Sec. 19-24  
 County: Missaukee  
 Unit: Cadillac  
 Mgmt Area: Upper Muskegon  
 YOE: 2017  
 Acres: 1862 GIS Calculated  
 Examiner: Blair Tweedale  
 Map Revised: 7/14/2015  
 Map Phase: Pre-Review

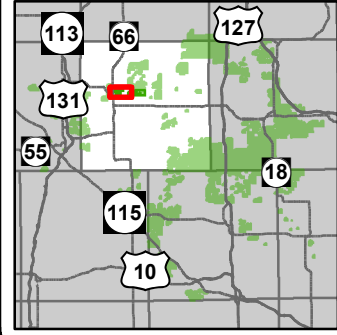


- ✚ Remonumented Section Corners
- ◇ Field Grade GPS Corners
- Miris Corners
- Paved Roads
- County Gravel Roads
- - Poor Dirt Roads
- County Poor Dirt Roads
- ✕ Gate
- ▲ Berms
- Rivers
- Lakes
- ▭ Clearcut (w/Reserves)
- ▭ Other Treatment - See Comments
- ▭ Harvest, Overstory Removal
- ▭ Non-Forest Covertype
- ▭ Forest Covertype
- ▭ 310 - Herbaceous Openland
- ▭ 320 - Upland Shrub
- ▭ 330 - Low Density Trees
- ▭ 413 - Aspen
- ▭ 419 - Mixed Upland Deciduous
- ▭ 421 - Planted Pines
- ▭ 422 - Natural Pines
- ▭ 423 - Other Upland Conifers
- ▭ 424 - Pine (OI)
- ▭ 430 - Upland Mixed Fores
- ▭ 611 - Lowland Deciduous Forest
- ▭ 612 - Lowland Coniferous Forest
- ▭ 500 - Water
- ▭ 622 - Lowland Shrub
- ▭ 623 - Emergent Wetland



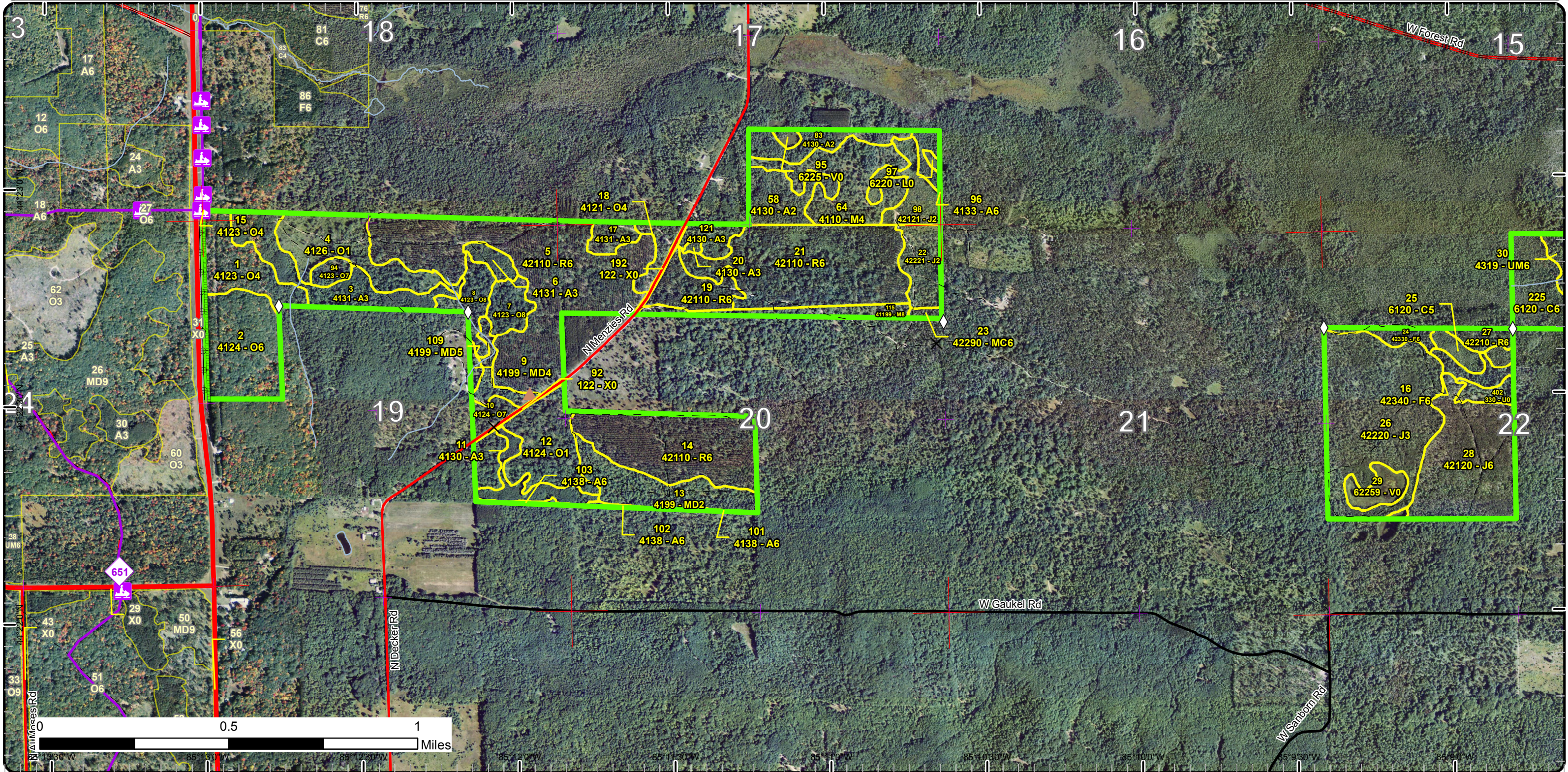


# Stand Boundary Map



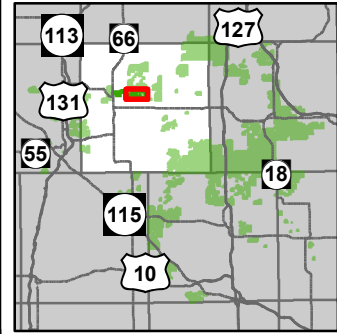
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- ▲ Berms
- 🚙 Snowmobile Trails
- Designated Snowmobile Trails
- Rivers
- Pipeline
- ⚡ Powerline
- 🟡 Stand Boundaries
- Forest Cotype
  - 411 - Northern Hardwood
  - 412 - Oak Types
  - 413 - Aspen
  - 419 - Mixed Upland Deciduous
  - 421 - Planted Pines
  - 422 - Natural Pines
- Non-Forest Cotype
  - 423 - Other Upland Conifers
  - 430 - Upland Mixed Fores
  - 612 - Lowland Coniferous Forest
  - 122 - Roads/Parking Lot
  - 330 - Low Density Trees
  - 622 - Lowland Shrub





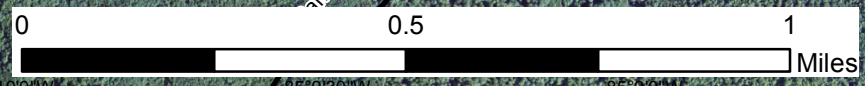
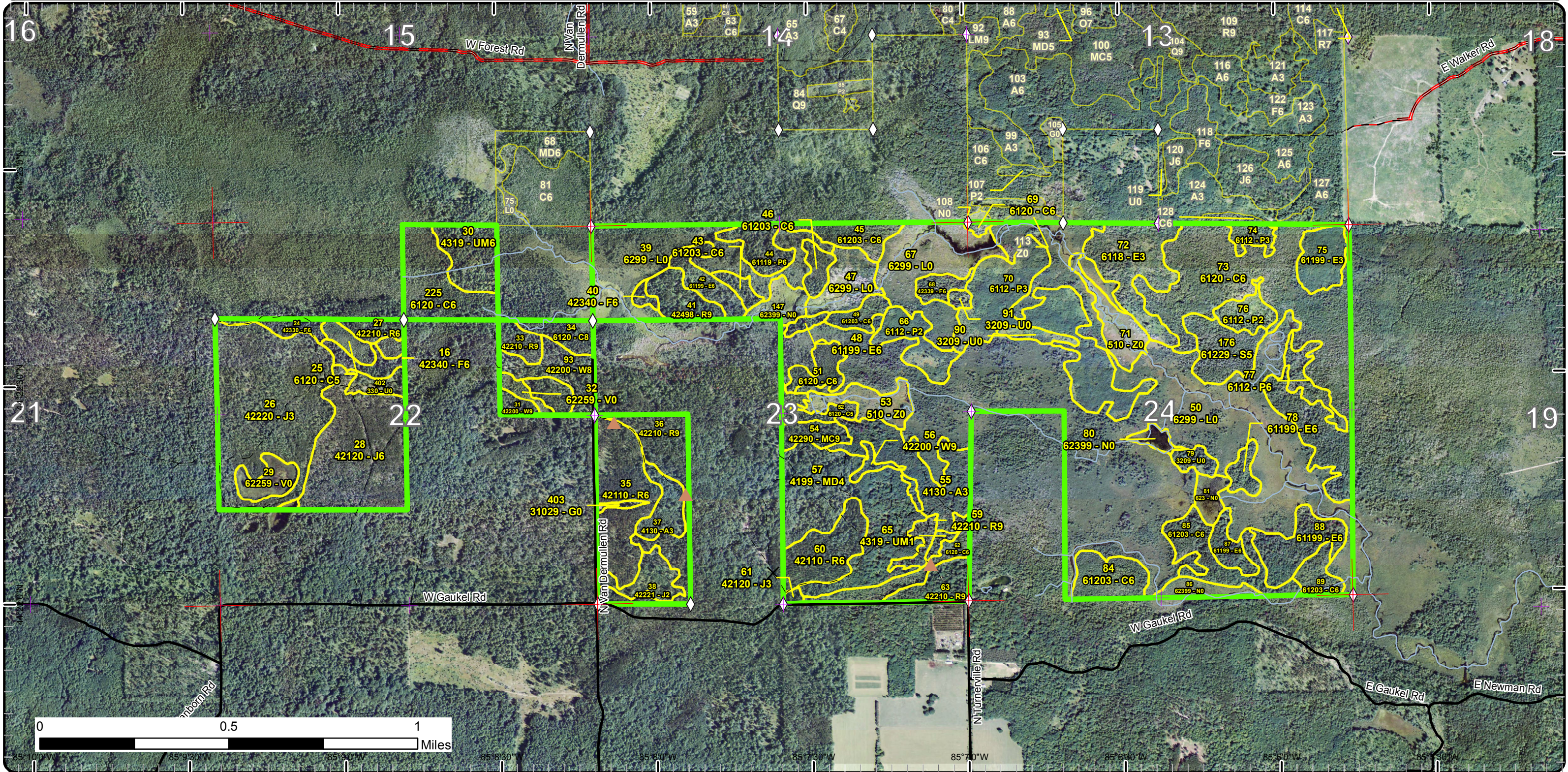
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- |   |  |   |
|---|--|---|
| <ul style="list-style-type: none"> <li>320 - Upland Shrub</li> <li>330 - Low Density Trees</li> <li>500 - Water</li> <li>622 - Lowland Shrub</li> <li>623 - Emergent Wetland</li> </ul> | <ul style="list-style-type: none"> <li>413 - Aspen</li> <li>419 - Mixed Upland Deciduous</li> <li>421 - Planted Pines</li> <li>422 - Natural Pines</li> <li>423 - Other Upland Conifers</li> <li>424 - Pine (OI)</li> <li>430 - Upland Mixed Fores</li> <li>611 - Lowland Deciduous Forest</li> <li>612 - Lowland Coniferous Forest</li> </ul> | <p>Non-Forest Coverture</p> <ul style="list-style-type: none"> <li>310 - Herbaceous Openland</li> </ul> |
|---|--|---|

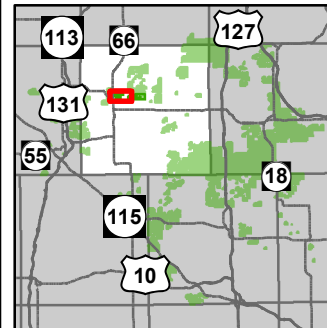


85°10'0"W 85°9'30"W 85°9'0"W 85°8'30"W 85°8'0"W 85°7'30"W 85°7'0"W 85°6'30"W 85°6'0"W 85°5'30"W

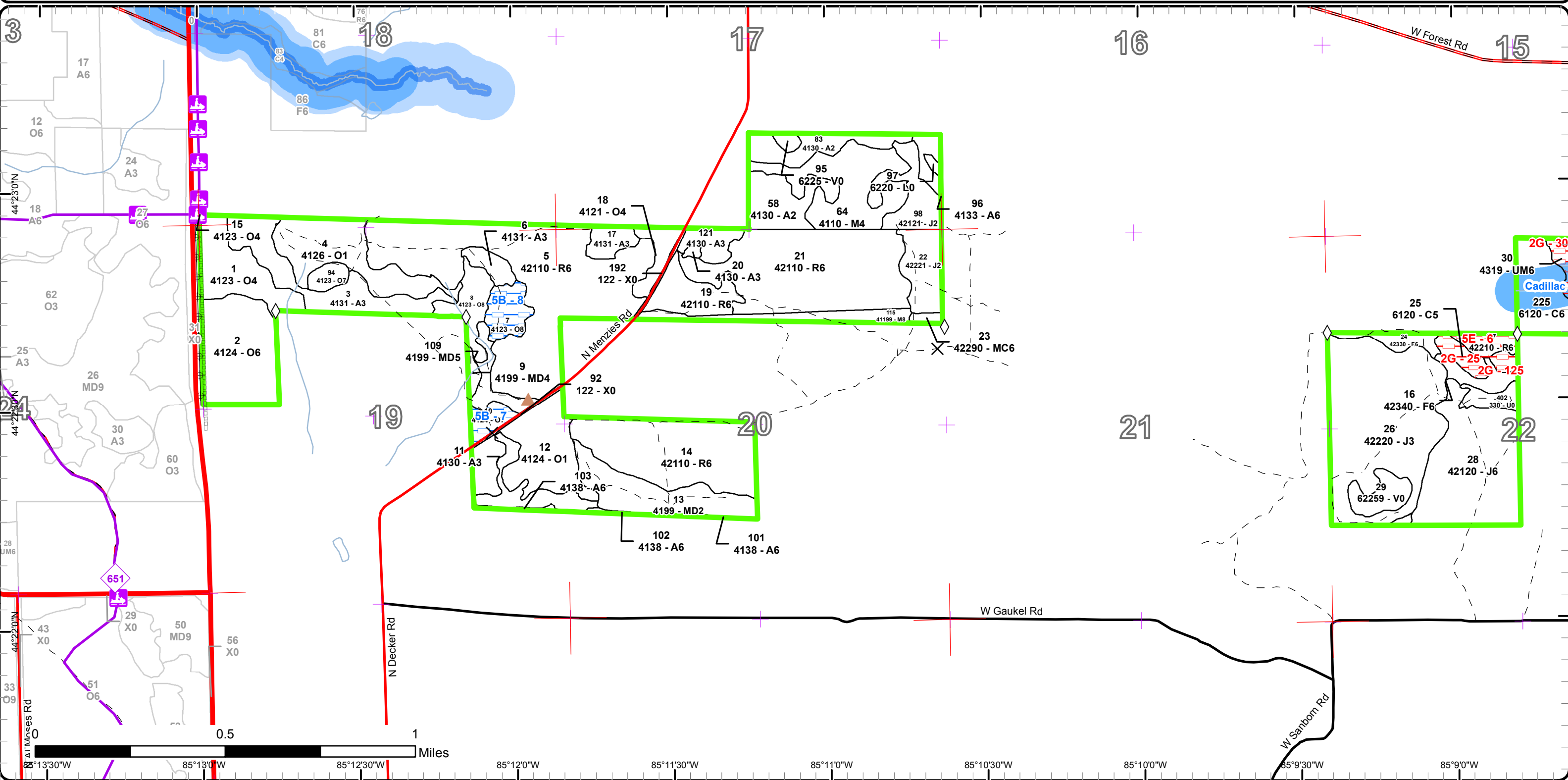


# Special Conservation Areas & Site Conditions Map

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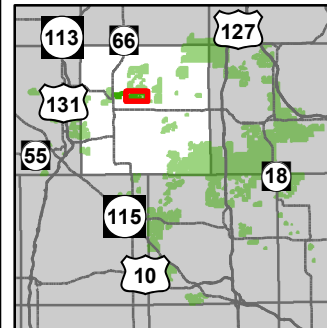


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- Stand Boundaries
- Site Condition
- Available w/ Constraints
- Unavailable
- Available Factors W/ Constraints**
- 5B: Maintain for regeneration purposes
- Unavailable Factors**
- 2G: Too wet (sensitive soils, does not include access issues)
- 5E: Long-Term Retention
- Special Conservation Areas
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Cold Water Streams
- High Priority Trout Stream Buffer

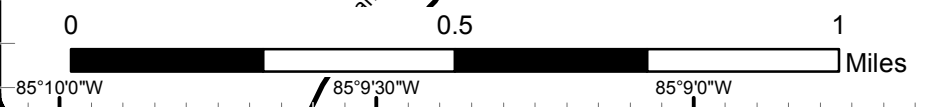
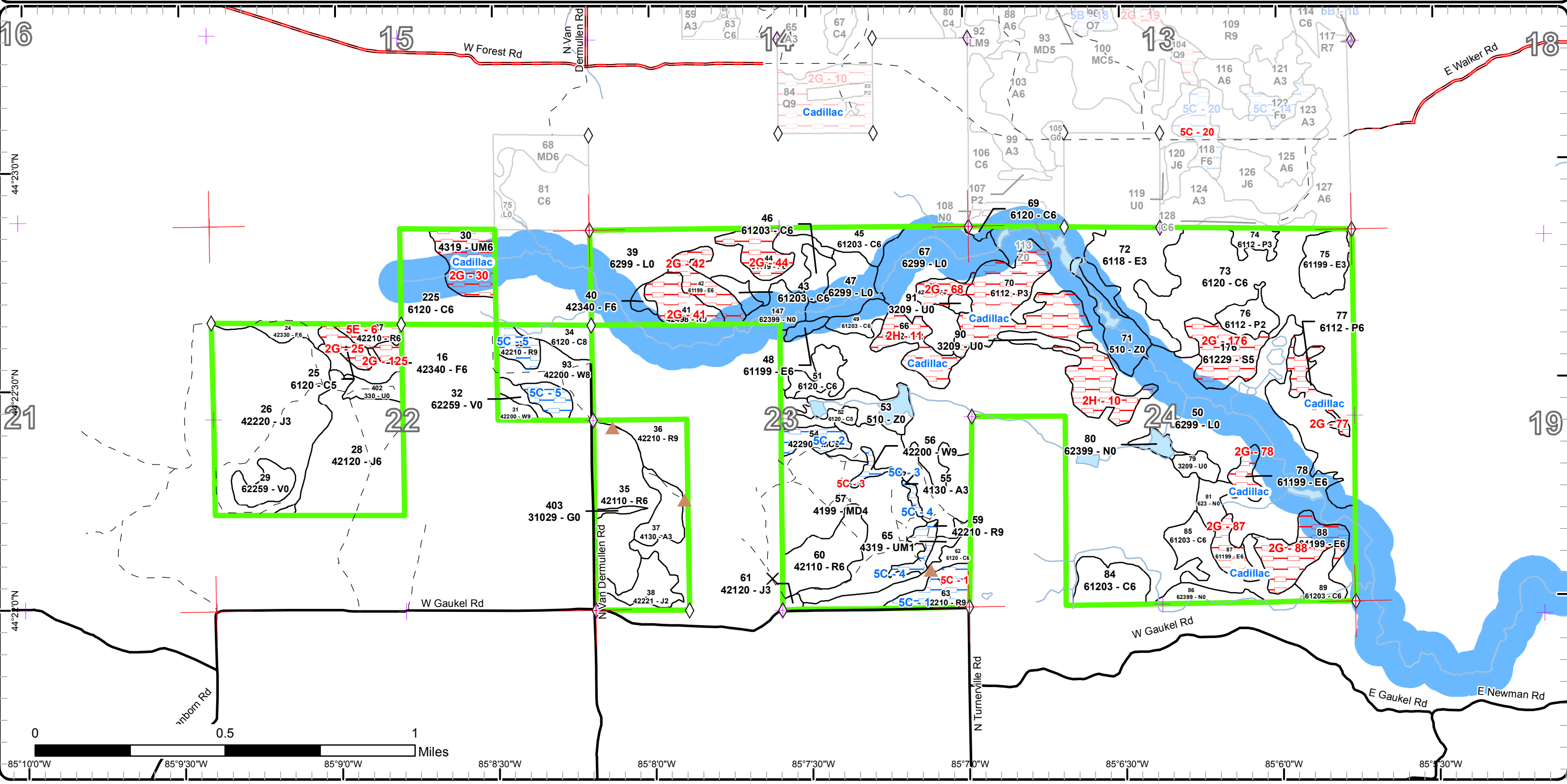


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- ▲ Berms
- Rivers
- Stand Boundaries
- Available w/ Constraints
- Unavailable
- Available Factors W/ Constraints**
- 5B: Maintain for regeneration purposes
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- Unavailable Factors**
- 2G: Too wet (sensitive soils, does not include access issues)
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 5E: Long-Term Retention
- Special Conservation Areas**
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer





# Report 1 – Total Acres by Cover Type and Age Class

Cadillac Mgt. Unit

Compartment 113 Year of Entry 2017

Blair Tweedale : Examiner



## Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	41	51	1	31	0	0	0	2	0	0	0	0	0	0	0	0	0	126
Bog	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Cedar	0	0	0	0	0	0	0	0	0	0	103	0	115	8	0	0	0	0	226
Herbaceous Openland	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Jack Pine	0	0	9	88	0	1	50	0	0	0	0	0	0	0	0	0	0	0	148
Low-Density Trees	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Lowland Aspen/Balsam Poplar	0	0	76	0	0	0	0	0	10	0	0	8	0	0	0	0	0	0	94
Lowland Deciduous	0	0	40	0	0	0	0	0	2	0	10	28	0	0	0	0	0	0	80
Lowland Shrub	381	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	381
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	16
Marsh	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
Mixed Upland Deciduous	0	0	0	81	2	7	0	0	0	0	0	0	0	0	0	0	0	0	90
Natural Mixed Pines	0	0	0	0	0	0	0	0	2	0	0	0	7	0	0	0	0	0	9
Northern Hardwood	0	0	14	0	32	0	0	0	11	0	0	0	0	0	0	0	0	0	57
Oak	0	61	0	0	0	7	0	0	0	11	53	0	0	0	0	0	0	22	154
Red Pine	0	0	0	0	0	0	276	0	0	5	22	26	10	6	0	0	0	0	345
Upland Mixed Forest	0	0	3	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	18
Upland Shrub	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Upland Spruce/Fir	0	0	0	0	0	0	7	6	0	0	5	0	0	0	0	0	0	0	18
Urban	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Water	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
White Pine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	21
<b>Total</b>	<b>460</b>	<b>102</b>	<b>193</b>	<b>170</b>	<b>80</b>	<b>15</b>	<b>333</b>	<b>6</b>	<b>27</b>	<b>16</b>	<b>193</b>	<b>78</b>	<b>132</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>43</b>	<b>1862</b>



## Report 2 – Treatment Summary

Cadillac Mgt. Unit

Year of Entry: 2017

Acres of Harvest

Compartment 113

Total Compartment Acres: 1,862

Commercial Harvest - 0  
 Harvests with Site Condition - 0  
 Next Step Harvest - 0  
 Habitat Cut - 46

### Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Jack Pine	27	0	0	0	0	0	0	0	0	27
Oak	0	0	0	34	0	0	0	0	0	34
Red Pine	81	0	0	0	0	0	26	0	0	107
Upland Spruce/Fir	8	0	0	0	0	0	0	0	0	8
<b>Total</b>	<b>115</b>	<b>0</b>	<b>0</b>	<b>34</b>	<b>0</b>	<b>0</b>	<b>26</b>	<b>0</b>	<b>0</b>	<b>176</b>

### Proposed and Next Step Treatments by Harvest Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	176	0	0	0	0	0	39	0	6	222
Next Step	0	161	81	0	34	81	257	26	0	640
<b>Total</b>	<b>176</b>	<b>161</b>	<b>81</b>	<b>0</b>	<b>34</b>	<b>81</b>	<b>296</b>	<b>26</b>	<b>6</b>	<b>862</b>



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
2	63113002-Cut	34.4	4124 - Red with White Oak	Poletimber Well	95	81-110	Harvest	Seed Tree	412 - Oak Types	Two-Aged	Proposal

**Habitat Cut: No****Site Condition:**

Prescription Thin stand to 20-40 BA. Leave a variety of size classes of oak while retaining good seed trees. Cut all red maple, possibly leave high stumps on red maple to limit the sprout.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory); Burn, Understory

Treatments:

Acceptable acceptable regeneration should be mixed oak with minimal red maple.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

8	63113008-Monitor	39.5	4123 - Red Oak	Sawtimber Medium	85	81-110	Monitoring	Other - Specify	412 - Oak Types	Two-Aged	Proposal
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**Habitat Cut: Yes****Site Condition:**

Prescription Check for Oak wilt.

Specs:Next StepTreatments:AcceptableRegen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

16	63113016-7-New	2.5	42340 - Upland Spruce/Fir	Poletimber Well	61	111- 140	Harvest	Clearcut with Retention	429 - Mixed Upland Conifers	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Final harvest while leaving a small clump of retention in the low/wet area.

Specs:Next StepTreatments:

Acceptable Mix of conifer and deciduous species

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

19	63113019-Cut	14.1	42110 - Planted Red Pine	Poletimber Well	54	81-110	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Final Harvest

Specs:Next StepTreatments:

Acceptable red pine

Regen:

Other no retention to plant red pine Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
21	63113021-Cut	66.6	42110 - Planted Red Pine	Poletimber Well	53	81-110	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Proposal

**Habitat Cut: No****Site Condition:**Prescription Final harvest.Specs:Next Step Pesticide, Other - Specify; SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr)  
Treatments:Acceptable Red Pine is acceptable regenerationRegen:Other No retention for planting of red pine. Old next step comments:Comment:Proposed Start Date: 10/1 /2016

24	63113024-Cut	5.2	42330 - Upland Fir	Poletimber Well	59	111- 140	Harvest	Clearcut with Retention	429 - Mixed Upland Conifers	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**Prescription Final harvest while leaving a small clump of retention in the low/wet area.Specs:Next Step  
Treatments:Acceptable A mix of conifer and deciduous is acceptableRegen:Other Old next step comments:Comment:Proposed Start Date: 10/1 /2016

28	63113028-Cut	27.0	42120 - Planted Jack Pine	Poletimber Well	53	Unspec ified	Harvest	Clearcut with Retention	4222 - Natural Jack Pine	Even-Aged	Proposal
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**Habitat Cut: No****Site Condition:**Prescription Final harvest. Only leave the maximum of one jack pine per acre, and leave all oak. Leave scattered slash evenly distributed throughout the site to maximize cone dispersal.Specs:Next Step  
Treatments:Acceptable jack pine and oak.Regen:Other Slash needs to be evenly distributed throughout the site to maximize cone dispersal for natural regeneration. Old next step comments:Comment:Proposed Start Date: 10/1 /2016

36	63113036-Cut	26.3	42210 - Natural Red Pine	Sawtimber Well	107	111- 140	Harvest	Overstory Removal	429 - Mixed Upland Conifers	Two-Aged	Proposal
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**Habitat Cut: No****Site Condition:**Prescription Seed tree harvest, leaving approximately 5-10 BA of red pine and white pine, and any oak found within the stand boundary, scattered, clumps, or any combination.Specs:Next Step Monitoring, Natural Regen (Re-Inventory); Other, Other  
Treatments:Acceptable White pine, aspen, red maple and red pineRegen:Other Due to the large amount of white pine regeneration on site, this stand will gradually shift to a white pine dominated stand. Old next step comments:Comment:Proposed Start Date: 10/1 /2016



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
98	63113098.11_ Cut	14.2	4110 - Sugar Maple Association	Sapling Medium	12	Unspec ified	Harvest	Salvage	42120 - Planted Jack Pine	Unspecified	Draft Field Boundary

**Habitat Cut: Yes**

**Site Condition:**

Prescription Look at success of trenching or planting and consider re doing. Right now the over story stand is scattered black cherry and jack.  
Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other This was cut last year of entry, trenched and planted. Old next step comments: Planting was successful NO treatment needed at this time  
Comment:

Proposed Start Date: 12/30/1899

402	63113402-NF	5.0	330 - Low-Density Trees	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	310 - Herbaceous Openland		Proposal
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**Habitat Cut: Yes**

**Site Condition:**

Prescription Maintain as an opening. May include mowing, disking, fertilizing, planting, cutting brush, planting shrubs or other mast/cover species.  
Specs: Leave a screen of trees along the property line.

Next Step  
Treatments:

Acceptable  
Regen:

Other Old next step comments:  
Comment:

Proposed Start Date: 1 /1 /2016

403	63113403-NF	1.3	31029 - Grass (OI)	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	310 - Herbaceous Openland		Proposal
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**Habitat Cut: Yes**

**Site Condition:**

Prescription Maintain as an opening. May include mowing, disking, fertilizing, planting, cutting brush, planting shrubs or other mast/cover species  
Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other Old next step comments:  
Comment:

Proposed Start Date: 1 /1 /2016

**Total Treatment  
 Acreage Proposed: 236.0**



## Report 5 – Site Conditions

Cadillac Mgt. Unit  
Blair Tweedale : Examiner

Compartment: 113  
Year of Entry: 2017

### Availability for Management

Total Acres	Acres		Dominant Site Conditions	2G	2H	5B	5C	5E
	Available	Not Available						
127	127	0	Aspen					
14	14	0	Bog					
226	219	7	Cedar	7				
1	1	0	Herbaceous Openland					
148	148	0	Jack Pine					
5	5	0	Low-Density Trees					
93	12	81	Lowland Aspen/Balsam Poplar	18	63			
80	42	38	Lowland Deciduous	38				
381	381	0	Lowland Shrub					
16	0	16	Lowland Spruce/Fir	16				
23	23	0	Marsh					
91	91	0	Mixed Upland Deciduous					
8	2	7	Natural Mixed Pines				7	
57	57	0	Northern Hardwood					
153	139	14	Oak			14		
346	303	43	Red Pine	11			27	5
18	3	15	Upland Mixed Forest	15				
10	10	0	Upland Shrub					
18	13	5	Upland Spruce/Fir	5				
2	2	0	Urban					
24	24	0	Water					
21	18	2	White Pine				2	
1,861	1,633	228	Total Forested Acres	110	63	14	36	5
	88%	12%	Relative Percent					

*\*Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.*

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Available	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	10	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Stand appeared to be seed tree/shelterwood harvested. At it's current stage, the mature pine on site are adding species diversity and structural diversity.							

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2	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	7	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b> Stand appeared to be seed tree/shelterwood harvested. At it's current stage, the mature pine on site are adding species diversity and structural diversity.</p>							
3	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	2	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b> Stand appeared to be seed tree/shelterwood harvested. At it's current stage, the mature pine on site are adding species diversity and structural diversity.</p>							
4	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	6	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b> Stand appeared to be seed tree/shelterwood harvested. At it's current stage, the mature pine on site are adding species diversity and structural diversity.</p>							
5	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	11	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b> Stand was commercially thinned last entry period. Hold for regeneration purpose.</p>							
6	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	5	5C: Delay treatment for age/size class diversity or exceptional site quality	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b> Stand is a beautiful mixed stand. Leave stand as is to maintain mature forest on this landscape.</p>							
7	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	5	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b></p>							

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8	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	9	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
10	<b>Unavailable</b>	<b>2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)</b>	50	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Wildlife Division has done a habitat cut in this area.							
11	<b>Unavailable</b>	<b>2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)</b>	13	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> wildlife division has habitat cut this stand in the past.							
25	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	5	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
30	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	16	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
41	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	10	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

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42	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	10	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
44	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	10	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
68	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	5	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
77	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	8	4A: No Markets Available for these Forest Products	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
78	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	5	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
87	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	7	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

## Report 5 – Site Conditions

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Compartment: 113  
Year of Entry: 2017

88	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	17	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
125	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	2	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
176	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	16	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							



Mgt. Unit

Compartment: #Type!

Year of Entry:



## Report 6 – PROPOSED SPECIAL CONSERVATION AREA\* (SCA) DETAILS

\* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
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Comments

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**Report 7 – EXISTING SPECIAL CONSERVATION AREA DETAILS**

\* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

ERA = Ecological Reference Area  
HCVA = High Conservation Value Area  
SCA = Special Conservation Area

Conservation Area	Type	Description
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4123 - Red Oak	Poletimber Poor	21.9	95	1-50	OPIC - FMD: Harvested in 1995. Salvage cut. Removed maple, aspen and poor oak. Scattered pockets of O2 and O3. Scattered sawlog sized oak as well. Possible burn or scarify to prepare seed bed. 1/15- Previously seed tree cut in 1995. Regenerating well. Will be a fully stocked oak stand.
2	4124 - Red with White Oak	Poletimber Well	34.8	95	81-110	OPIC - FMD: Oak thinning finished 5/99 (#96-97-01). RICHARD ELLSWORTH. O5 with scattered sawlog sized oak throughout stand. Pockets of Oak regen found throughout (knee high). A lot of red maple starting to reach pole size. Old railroad grade runs through SE portion of stand. MiFI 1/15- Topography and species vary throughout stand. Consider thinning to increase regeneration and release current regeneration. A lot of deer activity.
3	4131 - Aspen, Oak	Sapling Well	25.9	15	Immature	OPIC - FMD: MANAGE FOR ASPEN-OAK, LEAVE SOME BETTER QUALITY OAK, STAND TREATED BY BRUCE BUNDY SALE # 0959701. Stand is A3 \M2\O2. 1/15- Regenerating stand with varying pockets dominated by aspen, oak and maple. Scattered seed tree oak throughout.
4	4126 - White, Black, N. Pin Oak	Sapling Poor	28.8	3	1-50	OPIC - FMD: Stand was cut with sale #63-036-09-01 Stand was infected with Oak Wilt and was trenched prior to harvest. MiFI 1/15- Regenerating oak stand.
5	42110 - Planted Red Pine	Poletimber Well	95.8	54	111-140	OPIC - FMD: Third row thin. Remove overtopping hardwood were possible. Do not cut oak. Open up around pockets of oak regen and individual oaks. BA varies throughout stand. Thinned with sale 63-023-07-01
6	4131 - Aspen, Oak	Sapling Well	4.9	15	Immature	OPIC - FMD: Final harvested in 2000. Mix of redmaple, BT aspen and black oak. 1/21- Patchy mix of aspen and oak regeneration.
7	4123 - Red Oak	Sawtimber Medium	9.1	96	1-50	OPIC - FMD: Harvested in 2000 left good oak. Heavy maple and pin cherry understory with scattered o2 (mostly stump sprouts). Burn to set back maple and cherry. 1/21- Stand is regenerating well. Regeneration is thick.
8	4123 - Red Oak	Sawtimber Medium	10.7	85	81-110	OPIC - FMD: Stand was cut with sale #63-036-09-01 Stand was infected with Oak Wilt and was trenched prior to harvest. MiFI 1/15- Stand was thinned lightly with previous sale. Oak wilt was present.
9	4199 - Other Mixed Upland Deciduous	Poletimber Poor	1.9	35	1-50	OPIC - FMD: Scattered O4 and pin cherry with grassy open areas. Old dump.
10	4124 - Red with White Oak	Sawtimber Poor	5.2	95	1-50	OPIC - FMD: Remove all aspen, red maple and thin oak to 50% crown closure. Release oak regen were found. Leave all oak under 10" dbh and mark oak logs to cut. Leave enough large trees around gate to maintain closure. 1/15- Seed tree harvested 2009. Nicely regenerating stand.
11	4130 - Aspen	Sapling Well	10.9	15	Immature	OPIC - FMD: Nice A3. Some scattered Oak seed trees. 1/6- Tweedale: Aspen regen with a minor mix of red maple and red oak. Scattered large oak trees present.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
12	4124 - Red with White Oak	Sapling Poor	32.2	4	1-50	Sale complete (63-038-07-01) in early 2010. Stand has been seed tree harvested. Stump sprout red maple is probably the most abundant regen. Single stem red maple is also present. Red oak regeneration is approx. 2' tall, and is abundant in patches as well as scattered throughout. East end of stand has a higher BA.
13	4199 - Other Mixed Upland Deciduous	Sapling Medium	25.1	26	Immature	OPIC - FMD: Harvested in 1989. Mostly red maple with some scattered O1. 1/13- Stand is in the regeneration stage. Seed trees scattered with some pockets of crop trees.
14	42110 - Planted Red Pine	Poletimber Well	48.2	54	111-140	OPIC - FMD: Third row thin. Remove overtopping hardwood were possible. Do not cut oak. Open up around pockets of oak regen and individual oaks. BA varies throughout stand. A lot of garbage dumping in and around stand. 1/13- Stand has been third row thinned recently.
15	4123 - Red Oak	Poletimber Poor	0.0	95	1-50	OPIC - FMD: Harvested in 1995. Salvage cut. Removed maple, aspen and poor oak. Scattered pockets of O2 and O3. Scattered sawlog sized oak as well. Possible burn or scarify to prepare seed bed. 1/15- Previously seed tree cut in 1995. Regenerating well. Will be a fully stocked oak stand.
16	42340 - Upland Spruce/Fir	Poletimber Well	5.9	61	111-140	Stand is low and wet with high pockets.
17	4131 - Aspen, Oak	Sapling Well	5.8	4	Immature	Stand was harvested with sale 63-023-07-01. regenerating aspen-oak-maple stand with scattered oak-red pine seed trees.
18	4121 - Oak, Aspen	Poletimber Poor	6.6	46	51-80	Low density and low quality oak-aspen stand.
19	42110 - Planted Red Pine	Poletimber Well	14.1	54	81-110	Stand has been third row thinned around 2010. Planted pine is broken by open pockets and regeneration pockets.
20	4130 - Aspen	Sapling Well	0.8	27	Immature	Nice aspen regeneration. Stand is almost pole size.
21	42110 - Planted Red Pine	Poletimber Well	66.6	53	81-110	Stand was third row thinned in 2009-2010. Aspen pockets within the stand were final harvested, creating pockets of aspen-maple regeneration. A trace of scattered seed tree oak and cherry throughout.
22	42221 - Natural Jack Pine, Mixed Deciduous	Sapling Medium	13.6	28	Immature	Natural jack pine-cherry stand. Open canopy gaps scattered throughout. Jack pine soon to be pulp size.
23	42290 - Natural Mixed Pine	Poletimber Well	1.5	70	51-80	Jack pine has fallen apart. nice oak understory coming in. stand will convert to a red pine oak stand. Previous inventory found private SE corner.
24	42330 - Upland Fir	Poletimber Well	5.2	59	111-140	Stand is upland with some lowland. Jack pine is declining. Balsam is going to decline over the next 10-20 years.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
25	6120 - Lowland Cedar	Poletimber Medium	7.0	92	1-50	Low and wet.
26	42220 - Natural Jack Pine	Sapling Well	74.3	28	Immature	OPIC - FMD: Harvested in 1987 mix of Jack pine, White pine and Oak.
27	42210 - Natural Red Pine	Poletimber Well	5.2	87	111-140	Stand dominated by nice red pine with some white pine.
28	42120 - Planted Jack Pine	Poletimber Well	49.9	53	Unspecified	1/15- Portion of stand was planted in 1961, where western and southern portion of stand was already established as approximately 7 year old jack pine. Stand age is 53 years old and 60 years old respectively. Planted areas average 7" DBH and 3 pulp sticks tall.
30	4319 - Mixed Upland Forest	Poletimber Well	15.5	39	81-110	Stand slightly above water table. Dead and down balsam fir and aspen. Young red maple/balsam/hemlock stand.
31	42200 - Natural White Pine	Sawtimber Well	3.2	125	111-140	Uneven aged stand. Mix of white pine, red pine and some pockets of quaking aspen. There is no access to this stand. V type to the north and private land to the south.
33	42210 - Natural Red Pine	Sawtimber Well	11.4	97	111-140	Stand has been recently thinned. understory starting to become stocked. Southern portion of stand is lower in elevation, almost seasonably wet.
34	6120 - Lowland Cedar	Sawtimber Medium	7.5	125	1-50	Stand has increasing balsam fir component over past 30 years or so.
35	42110 - Planted Red Pine	Poletimber Well	32.5	54	81-110	1/3 row thinned by Vanduin in summer of 2008.
36	42210 - Natural Red Pine	Sawtimber Well	26.3	107	111-140	Nice red pine dominated stand with white pine and some scattered oak and maple. White pine understory is nice.
37	4130 - Aspen	Sapling Well	9.5	16	Immature	Final harvested in 1998. Aspen regeneration. Scattered log and pole size oak.
38	42221 - Natural Jack Pine, Mixed Deciduous	Sapling Medium	9.3	16	Immature	Final harvested JP in 1998. Left red pine and some JP seed trees. Mostly jack pine-aspen regeneration stand. Some scattered red pine.
40	42340 - Upland Spruce/Fir	Poletimber Well	1.9	54	81-110	OPIC - FMD: OI Stand Year Origin was 1961
41	42498 - Red Pine (OI)	Sawtimber Well	10.7	97	111-140	OPIC - FMD: Mix of mature red and white pine. Understory varies from red pine to balsam fir. Stand is isolated by L types and private land.
42	61199 - Lowland Hardwood (OI)	Poletimber Well	10.0	95	51-80	OPIC - FMD: Mix of aspen, red maple, balsam fir and cedar. Hummucky ground. Stand is surrounded by L types. Aspen is starting to decay. Habitat cut?



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
43	61203 - Cedar (OI)	Poletimber Well	3.5	95	81-110	OPIC - FMD: Balsam fir, cedar mix with some overtopping aspen and scattered black spruce. L understory in spots.
44	61119 - Lowland Aspen/Balsam Poplar (OI)	Poletimber Well	10.0	76	51-80	OPIC - FMD: Quaking aspen, balsam poplar, balsam fir with some scattered pole sized oak. Quaking aspen is old and breaking up. No access due to adjacent L types. Possible habitat cut. Stand was remote called due to lack of access.
45	61203 - Cedar (OI)	Poletimber Well	10.2	95	81-110	OPIC - FMD: Balsam fir, cedar mix with some overtopping aspen and scattered black spruce. Some portions of the stand are flooded and the cedar is starting to die.
46	61203 - Cedar (OI)	Poletimber Well	5.1	95	81-110	OPIC - FMD: Balsam fir, cedar mix with some overtopping aspen and scattered black spruce. Some portions of the stand are flooded and the cedar is starting to die. REMOTE CALLED DUE TO LOCATION.
48	61199 - Lowland Hardwood (OI)	Poletimber Well	2.2	76	51-80	Comments from 2005: Mix of red maple, balsam fir, aspen and paper birch. Aspen is starting to show signs of decay. Possible habitat cut. Stand is surrounded by L.
49	61203 - Cedar (OI)	Poletimber Well	5.5	95	81-110	Comments from 2005: Balsam fir, cedar mix with some overtopping aspen and scattered black spruce. Some portions of the stand are flooded and the cedar is starting to die.
51	6120 - Lowland Cedar	Poletimber Well	7.4	95	81-110	OPIC - FMD: Balsam fir, cedar mix with some overtopping aspen and scattered black spruce. Some portions of the stand are flooded and the cedar is starting to die. Species composition taken from the edge of stand and % values are estimated.
52	6120 - Lowland Cedar	Poletimber Medium	6.1	110	51-80	OPIC - FMD: Mix of n. white cedar, red maple, fir and scattered aspen. Stand is a buffer along the north branch of the Muskegon river. 2/15- Species composition was taken from edge of stand and is a rough estimate.
54	42290 - Natural Mixed Pine	Sawtimber Well	6.7	118	51-80	OPIC - FMD: Uneven aged red and white pine mix with a maple fir understory. Thin the 14-18 inch red and white pine. Release the smaller diameter pine were found. Leave the big super canopy red pines for seed. Open up some holes for red pine to seed into. Could scarify or harvest during the summer months. Sale complete #63-012-07-01
55	4130 - Aspen	Sapling Well	26.9	39	Unspecified	OPIC - FMD: Quaking aspen, nice A3. Scattered W1,R1,O1. Almost pole sized. Stand is wet in places. Tag alder understory in the wet areas. No current age taken and no cut records found.
56	42200 - Natural White Pine	Sawtimber Well	2.4	125	51-80	
57	4199 - Other Mixed Upland Deciduous	Poletimber Poor	56.4	25	51-80	Very patchy and complex stand. Clones of dense and scattered aspen dominate patches, along with multi-stem red maple and black cherry dominating other portions of stand. Over all, BA varies greatly.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
58	4130 - Aspen	Sapling Medium	15.8	1	Immature	Stand cut with sale 63-029-10-01 winter 2014/2015
59	42210 - Natural Red Pine	Sawtimber Well	5.7	125	51-80	Stand was recently harvested with Sale #63-012-07-01.
60	42110 - Planted Red Pine	Poletimber Well	19.2	54	81-110	Red pine stand was third row thinned recently with sale #63-012-07-01.
61	42120 - Planted Jack Pine	Sapling Well	1.1	46	1-50	OPIC - FMD: Not quite pole-sized yet.
62	6120 - Lowland Cedar	Poletimber Well	11.0	117	51-80	OPIC - FMD: Stand buffers small stream.
63	42210 - Natural Red Pine	Sawtimber Well	10.2	118	51-80	OPIC - FMD: Thinned in 1998. Cut all aspen, maple and marked pine, left oak. W3 understory in spots. Stand is now an uneven aged stand of white pine, red pine, aspen, maple and oak. Saw log sized oak can be found scattered throughout stand. Some O2 in the understory.
64	4110 - Sugar Maple Association	Poletimber Poor	31.8	37	Unspecified	Open stand with scattered black cherry and hawthorn.
65	4319 - Mixed Upland Forest	Sapling Poor	2.6	17	Immature	OPIC - FMD: Final harvested in 1998. Not much for regen. Stand is a mix of grass and brambles with scattered A2, F1, W1. Some white pine sawlog trees and pole sized cedar trees are located in the stand.
66	6112 - Lowland Aspen	Sapling Medium	12.8	14	Immature	OPIC - FMD: Habitat cut in 2001. Not doing as well as stand 71. This could be due to different soil types. Stand 66 is AuGres loamy sand. Stand 70 is Roscommon mucky sand. Nice P3 around the edges. Center of stand has scattered White pine, black spruce, and paper birch seedlings and saplings. Heavy snow cover could have been covering additional seedlings. Not as many deer tracks as north of the Muskegon river.
68	42339 - Upland Spruce/Fir (OI)	Poletimber Well	5.0	90	51-80	Comments from 2005: Stand of balsam fir with scattered quaking aspen, white pine and black oak. No access, due to L types. Could be habitat cut.
69	6120 - Lowland Cedar	Poletimber Well	1.2	95	81-110	OPIC - FMD: Balsam fir, cedar mix with some overtopping aspen and scattered black spruce. Some portions of the stand are flooded and the cedar is starting to die.
70	6112 - Lowland Aspen	Sapling Well	50.1	14	Immature	OPIC - FMD: Habitat cut in 2001. Nice P3. Not many deer tracks in stand. Very difficult to get around due to the fallen trees.
72	6118 - Lowland Deciduous with Cedar	Sapling Well	27.9	11	81-110	Aspen regenerating well. Some low wet areas are flooded and have cattails. Heavy cedar blow down. No visible cedar regeneration (snow).



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
73	6120 - Lowland Cedar	Poletimber Well	98.5	115	111-140	OPIC - FMD: C6 with heavy balsam fir understory. Some 1-6 inch cedar seedlings noted in the 1995 inventory. None were found in 2005, due to heavy snow.
74	6112 - Lowland Aspen	Sapling Well	4.8	12	Immature	Stand regenerating to a fully stocked stand. Scattered pole cedar standing. A lot of residual cedar has blown down.
75	61199 - Lowland Hardwood (OI)	Sapling Well	12.0	12	Immature	OPIC - FMD: Final harvested in 2003. Nice E3 understory. Lots of deer browse. Most of the stand is above the browse line.
76	6112 - Lowland Aspen	Sapling Medium	7.6	11	51-80	Stand was harvested in 2003. Aspen regeneration with scattered pole size cedar. Cedar blow down present throughout.
77	6112 - Lowland Aspen	Poletimber Well	7.9	101	81-110	Comments from 2005: Wet stand. Mix of red maple, paper birch, quaking aspen, BAM and some black oak on higher ground. Tag alder understory. Aspen is falling apart. No access due to L types and cedar swamps. Could habitat cut.
78	61199 - Lowland Hardwood (OI)	Poletimber Well	4.9	101	111-140	Previous notes indicate this stand was Rx'd in 1995, but was not harvested to do lack of access. Previous inventory also indicates stand is converting to fir.
83	4130 - Aspen	Sapling Medium	12.7	1	Immature	Stand cut with sale 63-029-10-01 Winter 2014/2015
84	61203 - Cedar (OI)	Poletimber Well	13.6	95	81-110	OPIC - FMD: Balsam fir, cedar mix with some overtopping aspen and scattered black spruce.
85	61203 - Cedar (OI)	Poletimber Well	17.8	95	81-110	OPIC - FMD: Balsam fir, cedar mix with some overtopping aspen and scattered black spruce.
87	61199 - Lowland Hardwood (OI)	Poletimber Well	6.6	101	81-110	OPIC - FMD: Wet stand. Mix of red maple, paper birch, quaking aspen, BAM and some black oak on higher ground. Tag alder understory. Aspen is falling apart. No access due to L types and cedar swamps.
88	61199 - Lowland Hardwood (OI)	Poletimber Well	16.6	101	81-110	OPIC - FMD: Wet stand. Mix of red maple, paper birch, quaking aspen, BAM and some black oak on higher ground. Tag alder understory. Aspen is falling apart. No access due to L types and cedar swamps.
89	61203 - Cedar (OI)	Poletimber Well	7.0	95	81-110	OPIC - FMD: Balsam fir, cedar mix with some overtopping aspen and scattered black spruce. Stream runs through south east portion of stand.
93	42200 - Natural White Pine	Sawtimber Medium	14.9	105	51-80	Stand was recently thinned with stand 33. Stand has large canopy white and red pine with free-to-grow smaller diameter mixed species throughout (conifer and deciduous). Stand should be classified as a mixed species stand in near future.





	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
94	4123 - Red Oak	Sawtimber Poor	4.0	92	1-50	OPIC - FMD: Stand was cut with sale #63-036-09-01 Stand was infected with Oak Wilt and was trenched prior to harvest. MiFI 1/15- pockets of pole size oak, which most of the stand has scattered large oak with regeneration coming in.
96	4133 - Aspen, Mixed Pine	Poletimber Well	4.4	33	Unspecified	Mixed aspen stand ,,low and wet in some spots.
98	4110 - Sugar Maple Association	Sapling Medium	14.2	12	Unspecified	This was cut last year of entry and appears to be trenched but snow is covering the trenches and unable to tell success.
101	4138 - Aspen (OI)	Poletimber Well	0.2	72	51-80	OPIC - FMD: Long narrow strip of aspen left when stand 11 was harvested. Needs survey to determine private line. Stand may become much smaller after survey. If survey determines that there is enough area to treat, final harvest all aspen and maple. Leave all oak. Following survey stand no longer exists
102	4138 - Aspen (OI)	Poletimber Well	1.0	72	51-80	OPIC - FMD: Long narrow strip of aspen left when stand 11 was harvested. Needs survey to determine private line. Stand may become much smaller after survey. If survey determines that there is enough area to treat, final harvest all aspen and maple. Leave all oak. Following survey stand no longer exists
103	4138 - Aspen (OI)	Poletimber Well	1.1	72	51-80	OPIC - FMD: Long narrow strip of aspen left when stand 11 was harvested. Needs survey to determine private line. Stand may become much smaller after survey. If survey determines that there is enough area to treat, final harvest all aspen and maple. Leave all oak. Following survey stand no longer exists
109	4199 - Other Mixed Upland Deciduous	Poletimber Medium	7.1	47	51-80	OPIC - FMD: OI Stand Year Origin was 1967. 1/21/15- Open grown low quality stand. Old dump on western edge.
115	41199 - Northern Hardwood (OI)	Sawtimber Medium	10.9	76	1-50	OPIC - FMD: OI Stand Year Origin was 1939
121	4130 - Aspen	Sapling Well	6.7	5	Immature	OPIC - FMD: Mix of R6 and A5. Third row thin red pine. Do patch clearcuts in portions of the stand with heavy maple and large aspen. Do not cut healthy oak. Stand was prescribed 20 years and was not harvested.
176	61229 - Black Spruce (OI)	Poletimber Medium	16.0	109	51-80	
225	6120 - Lowland Cedar	Poletimber Well	24.7	95	111-140	Mostly cedar dominated with pockets dominated by hemlock. Trace of spruce and tamarack.



Stand	Cover Type	Acres	Managed Site	General Comments:
29	62259 - Bog (OI)	8.9	No	OPIC - FMD: Bog.
32	62259 - Bog (OI)	3.1	No	Blueberry leatherleaf bog.
39	6299 - Lowland Shrub (OI)	48.0	No	OPIC - FMD: Large complex of streams, tag alder, with scattered black spruce, cedar and tamarack.
47	6299 - Lowland Shrub (OI)	13.8	No	OPIC - FMD: Treed bog. Dead cedar flooded by beaver activity.
50	6299 - Lowland Shrub (OI)	283.0	No	OPIC - FMD: Large complex of streams, tag alder, with scattered black spruce, cedar, dead cedar and tamarack.
53	510- Water (OI)	12.1	No	Beaver flooding.
67	6299 - Lowland Shrub (OI)	35.3	No	Large complex of tag alder, with scattered black spruce, cedar, dead cedar and tamarack along the north branch of the Muskegon river. A lot of beaver activity.
71	510- Water (OI)	11.6	No	OPIC - FMD: Beaver flooding.
79	3209 - Upland Shrub (OI)	4.2	No	OPIC - FMD: Island surrounded by L, consider burning.
80	62399 - Marsh (OI)	3.3	No	OPIC - FMD: Old beaver flooding.
81	623 - Emergent Wetland	5.5	No	Beaver flooding
86	62399 - Marsh (OI)	6.3	No	OPIC - FMD: Marsh grass, cattails and some L along stream.
90	3209 - Upland Shrub (OI)	3.8	No	OPIC - FMD: Borders L to the south and P3 to the north.
91	3209 - Upland Shrub (OI)	1.7	No	Comments from 2005: Patch of high ground surrounded by L, P, and F.
92	122 - Road/Parking Lot	1.1	No	OPIC - FMD: Decker Road. Paved county road.
95	6225 - Bog	1.7	No	
97	6220 - Alder/willow	0.9	No	
147	62399 - Marsh (OI)	7.7	No	OPIC - FMD: Marsh grass, cattails and some L along stream. Old beaver flooding.



Stand	Cover Type	Acres	Managed Site	General Comments:
192	122 - Road/Parking Lot	1.4	No	OPIC - FMD: Decker Road. Paved county road.
402	330 - Low-Density Trees	5.0	No	Grass opening area with pine, aspen and maple filling in. Some seedlings have been cut by adjacent landowner for shooting lanes.
403	31029 - Grass (O)	1.3	No	Grassy opening between stands of red pine. Some scattered cherry.